What is claimed is:

1. A crystalline form of gatifloxacin characterized by an x-ray reflection at about 17.2° ± 0.2° 2θ.

2. The crystalline form of gatifloxacin of claim 1 having an x-ray diffraction diagram substantially as shown in Figure 1.

3. A method of making the crystalline gatifloxacin of claim 1 comprising the steps of:

a) providing, at a temperature of at least about 70°C, a solution of gatifloxacin in a solvent consisting essentially of a mixture of methanol and water, wherein the volume percent water is about 5 vol-% to about 15 vol-%,

b) cooling the solution to obtain a suspension,

c) isolating the solid from the suspension, and

d) drying the recovered solid at a temperature of about 40° C to about 70° C to obtain the crystalline form of gatifloxacin.

4. The method of claim 3 wherein the solution is cooled to ambient temperature and thereafter to a temperature of about 0° C to about 10° C.

5. The method of claim 3 wherein the volume percent water in the solvent is about 10 vol-%.

6. The method of claim 3 wherein the recovered solid is dried at a temperature of about 55° C.

7. A crystalline form of gatifloxacin characterized by x-ray reflections at about 8.8°, 14.1°, 17.6°, 18.2°, 22.0°, and 22.6° ± 0.2° 2θ.

8. The crystalline form of gatifloxacin of claim 7 having an x-ray diffraction diagram substantially as shown in Figure 2.

9. A method of making the crystalline form of gatifloxacin of claim 10 comprising the steps of:

a) slurrying gatifloxacin in ethanol, wherein the gatifloxacin slurried is selected from form T1RP, T1, and mixtures of these,

b) isolating the solid from the slurry, and

c) drying the isolated solid at ambient temperature and pressure to obtain the crystalline form of gatifloxacin.

10. A crystalline form of gatifloxacin characterized by x-ray reflections at about 11.1°, 11.7°, 12.5° and 23.0° ± 0.2° θ.

11. The crystalline form of gatifloxacin of claim 10 having an x-ray diffraction diagram substantially as shown in Figure 3.

12. A method of making the crystalline form of gatifloxacin of claim 10 comprising the steps of:

a) providing, at a temperature of at least about 75° C, a solution of gatifloxacin in a solvent consisting essentially of a mixture of ethanol and water, wherein the volume percent ethanol in the mixture is at least about 95 vol-%,

b) cooling the solution whereby a suspension is obtained, and

c) isolating the crystalline form of gatifloxacin from the suspension.

13. The method of claim 12 wherein the solution is cooled to ambient temperature and thereafter to a temperature of about 0° C to about 10°C.

14. The method of claim 12 wherein the volume percent water in the solvent is about 1 vol-%.

15. A crystalline form of gatifloxacin characterized by x-ray reflections at about 6.8°, 7.1°, 11.1°, 15.5°, and 17.4° ± 0.2° 2θ.

16. The crystalline form of gatifloxacin of claim 15 having an x-ray diffraction diagram essentially as shown in Figure 4.

17. A method of making the crystalline form of gatifloxacin of claim 15 comprising the steps of:

a) providing, at reflux, a solution of gatifloxacin in a solvent consisting essentially of a mixture of acetonitrile and water, wherein the volume percent water in the mixture is about 2 vol-%,

b) cooling the solution whereby a suspension is obtained,

c) isolating the solid from the suspension, and

d) drying the isolated solid at about 50° C and a pressure of about 10 to about 400 mm Hg to obtain the crystalline form of gatifloxacin.

18. The method of claim 21 wherein the solution is cooled to ambient temperature and thereafter to a temperature of about 0° C to about 10°C.

19. A crystalline form of gatifloxacin characterized by x-ray reflections at about 9.3°, 11.0°, and 21.2° ± 0.2° 2θ.

20. The crystalline form of gatifloxacin of claim 19 further characterized by x-ray reflections at about 12.0°, 14.5°, and 18.6°, ± 0.2° 2θ.

21. The crystalline form of gatifloxacin of claim 20 having an x-ray diffraction diagram substantially as shown in Figure 5.

22. A method of making the crystalline gatifloxacin of claim 19 comprising the steps of:

a) crystallizing gatifloxacin from acetonitrile,

b) isolating the gatifloxacin crystallized from acetonitrile,

c) slurrying the gatifloxacin so isolated in a lower alkanol having 1 to 4 carbon atoms for a slurry time of at least about 2 hours, and

d) isolating the crystalline form of gatifloxacin from the slurry.

23. The method of claim 22 wherein the lower alkanol is ethanol.

24. A crystalline form of gatifloxacin characterized by x-ray reflections at about 7.4°, 8.9°, 9.6°, 11.4°, 12.2°, 12.9°, 14.1°, 16.7°, 21.2°, 21.8°, 24.1°, and 26.0° ± 0.2° 2θ.

25. The crystalline form of gatifloxacin of claim 24 having an x-ray diffraction diagram essentially as shown in Figure 6.

26. A method of making the crystalline form of gatifloxacin of claim 24 comprising the steps of:

a) crystallizing gatifloxacin from acetonitrile,

b) isolating the gatifloxacin crystallized from acetonitrile,

c) slurrying the gatifloxacin so isolated in ethanol for a slurry time of about 2 hours or less, and

d) isolating gatifloxacin form T1.

27. A method of making gatifloxacin sesquihydrate comprising the step of maintaining gatifloxacin form P at ambient temperature for a time sufficient to effect conversion to the sesquihydrate.

28. The method of claim 27 wherein the maintaining is for a time of about one month.

29. A method of making gatifloxacin form omega comprising the step of drying gatifloxacin form K at about 50° and a pressure of about 10 mm Hg.

30. The method of claim 29 wherein the drying is for a time of about 24 hours.

31. A method of making gatifloxacin crystalline form J comprising the step of drying gatifloxacin form K at about 50° C and atmospheric pressure.

32. The method of claim 31 wherein the drying is for a time of about 12 to about 18 hours.

33. A method of making gatifloxacin form omega comprising the step of maintaining form L at ambient temperature for a time sufficient to effect conversion to form omega.

34. The method of claim 33 wherein the maintaining is for a time of about 2 months.

35. A method of making gatifloxacin hemihydrate comprising the step of maintaining gatifloxacin form M at room temperature for a time sufficient to effect conversion to the hemihydrate.

36. A method of making gatifloxacin form T1 comprising the step of heating gatifloxacin form P at 50°C.

37. A pharmaceutical composition comprising at least one pharmaceutically acceptable excipient and at least one of gatifloxacin forms L, M, P, Q, S, and T1.